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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,691	03/29/2004	Goro Asai	118522	1199
25944	7590	12/13/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER GOINS, DAVETTA WOODS	
			ART UNIT 2632	PAPER NUMBER

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/810,691	<b>Applicant(s)</b> ASAI, GORO	
	<b>Examiner</b> Davetta W. Goins	<b>Art Unit</b> 2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/04, 7/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

***Allowable Subject Matter***

1. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-5 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Remillard et al. (US Pat. 6,730,913 B2).

In reference to claim 1, Remillard discloses the claimed a lamp bulb that flashes based upon a predetermined flash control, which is met by light source may comprise a NIR diode laser. The laser light source is capable of producing sufficiently short pulses of light and may be disposed in a housing 12 (col. 3, lines 46-65) and b) the claimed infrared light reduction member which reduces infrared light of flashing light emitted by the lamp bulb and which is provided for one of the lamp bulb and a periphery of the

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lamp bulb, which is met by an optical band pass filter 22 is provided to filter the infrared light reflected from the object 24. An advantage of using the filter 22 is that the filter 22 prevents saturation of the pixel elements (i.e., blooming) in the camera 20 by visible light emitted from the headlamps of other automotive vehicles. The filter 22 is preferably disposed proximate to a receiving lens in the camera 20 (col. 4, lines 11-19).

In reference to claims 3, 13, Remillard discloses a) the claimed imaging unit which is sensitive to infrared light and which is disposed such that a vehicle side zone including a side turn signal light provided on a vehicle body side surface can be imaged, which is met by NIR-sensitive camera 20 provides a video signal responsive to reflected infrared light received by the camera 20 (col. 3, lines 65-67; col. 4, lines 1-10), b) the claimed display unit that displays a shot image that is imaged by the imaging unit and c) the claimed display control portion that inhibits display on the display unit of the shot image from the imaging unit when the side turn signal light is lit, which is met by video signal is transmitted to the controller 11 or directly to the display module 30 where it is processed and displayed to allow the vehicle operator to see the object 24. The display 30 may be a television monitor, a CRT, LCD, or heads up display positioned within the automotive vehicle to allow the user to see objects illuminated by the system 10 (col. 4, lines 11-19).

In reference to claims 4, 5, Remillard discloses the claimed imaging unit opens and closes a shutter provided in the imaging unit in synchronization with flushing of the side

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turn signal light, which is met by relay between the camera shutter and the laser pulse is representative of a predetermined distance from the night vision system (col. 5, lines 62-67; col. 6, lines 1-16).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Remillard et al. in view of Stark et al. (US Pat. 6,268,685).

In reference to claim 2, Remillard does not specifically disclose the claimed the infrared light reduction member is at least one of an infrared light reduction coating that is applied to the lamp bulb, an infrared light reducing film that is attached to a lens that covers the lamp bulb, and an infrared light reducing filter plate that is disposed between the lamp bulb and the lens. However, he does disclose an optical band pass filter 22 is provided to filter the infrared light reflected from the object 24 (col. 4, lines 11-19).

Stark discloses a light bulb for a headlamp of a vehicle including an ir filter as well as wavelength discriminating reflective coatings are used to reflect the undesired light back to the filament-mantle structure for energy recycling, while allowing the desirable light

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to radiate from the lamp (col. 15, lines 63-67; col. 16, lines 1-7). Since both Remillard and Stark disclose systems that filter infrared for a lamp of a vehicle, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of using a coating, as disclosed by Stark, with the system of Remillard, to ensure that the undesired level of infrared light will not be dispersed from the housing of the lamp.

In reference to claim 6, Remillard discloses a) the claimed an illumination portion that illuminates an imaged zone that is imaged by the imaging unit with near-infrared light, which is met by beam light source 14 (Figure 1), and b) the claimed illumination control portion that controls illumination of the illumination portion, wherein the illumination control portion interrupts illumination of the illumination portion when the side turn signal light is lit, which is met by controller 11 (Figure 1; col. 4, lines 11-19).

6. Claims 9-12, 14, 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Remillard et al.

In reference to claims 9-12, 14, 15, Remillard discloses the claimed imaging unit which is sensitive to infrared light and which images a vehicle side zone including a side turn signal light provided on a vehicle body side surface and a display unit that displays a shot image that is imaged by the imaging unit, which is met by an optical band pass filter 22 is provided to filter the infrared light reflected from the object 24. In particular, the filter 22 only allows light within the NIR light spectrum to be received by the

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camera 20. Preferably, the filter 22 allows a maximum transmission of light at a wavelength equal to the wavelength of light generated by the NIR light source. In one example, this is the NIR range of 800-900 nm. An advantage of using the filter 22 is that the filter 22 prevents saturation of the pixel elements (i.e., blooming) in the camera 20 by visible light emitted from the headlamps of other automotive vehicles. The filter 22 is preferably disposed proximate to a receiving lens in the camera 20 (col. 4, lines 20-31). Remillard does not specifically disclose the claimed shielding portion that shields an optical path that connects the side turn signal light and the imaging unit. However, he does disclose a night vision system working with the headlamps of the vehicle. Since Remillard discloses a system that includes an imaging unit sensitive to infrared light, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shielding portion to shield optical path from any lamp, such as a side turn signal, that may interfere with the imaging unit capturing the detected object in its path.

7. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure as follows. Bos et al. (US Pat. 6,667,471 B2), disclosing a vehicle imaging system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 571-272-2957. The examiner can normally be reached on Mon-Fri with every other Fri. off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D.W.G.  
December 8, 2005

Davetta W. Goins  
Primary Examiner  
Art Unit 2632